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Immunoregulatory Metabolites with Clinical Relevance

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Message from the Guest Editors

Dear Colleagues,

Numerous metabolites significantly contribute to the regulation of immune responses. Their modes of action can vary widely, ranging from immune activation to the termination of inflammation, the suppression of responses, and the mediation of tolerance. A key example is cytokine interferon-gamma, which affects a variety of metabolic pathways. In this context, immune-mediated tryptophan catabolism along the kynurenine axis is probably one of the most reviewed metabolic pathways, with clinical relevance in chronic immunopathologies. However, several other metabolite classes are co-regulated with cytokine responses, linking, e.g., altered nutrient and energy metabolism to immunological processes relevant to disease.

In this Special Issue, metabolites that influence immunological regulatory circuits and have clinical relevance, e.g., as potential drug targets, or with predictive or prognostic significance, are presented. These may include but are not limited to amino acids and derivatives, biogenic amines, lipid classes, pteridines, and signaling gases. Clinical and translational studies as well as basic experimental research will be covered.



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Message from the Editor-in-Chief

The metabolome is the result of the combined effects of genetic and environmental influences on metabolic processes. Metabolomic studies can provide a global view of metabolism and thereby improve our understanding of the underlying biology. Advances in metabolomic technologies have shown utility for elucidating mechanisms which underlie fundamental biological processes including disease pathology. *Metabolites* is proud to be part of the development of metabolomics and we look forward to working with many of you to publish high quality metabolomic studies.

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